

The Gay Report on Sexually Transmitted Diseases

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Abstract: Most studies of sexually transmitted diseases in homosexual men have examined prevalence in clinic populations; for comparative purposes, we analyzed data from a survey of 4,329 gay men conducted in 1977.

Among 4,212 respondents to the self-administered questionnaire, 66.8 per cent reported previous infection with pediculosis; 38.4 per cent, gonorrhea; 24.1 per cent, nonspecific urethritis; 18.1 per cent, venereal warts; 13.5 per cent, syphilis; 9.7 per cent, hepatitis; and 9.4 per cent, herpes. Number of different lifetime sexual partners best predicted histories of syphilis ($r = .249$), gonorrhea ($r = .402$), and the other diseases; frequency of checkups, years as a practicing homosexual, and furtive sexual activities were among the many

other significant correlates of venereal infections. Respondents most often sought examinations from private physicians (39.4 per cent); those who visited gay clinics were examined most often and felt most positive about their medical care.

Gay men who participated in the survey reported frequent infections with many of the same sexually transmitted diseases often seen in private medical practices, public VD clinics, and gay health centers. Since high rates of disease are related to large numbers of different partners, frequent exposures with anonymous contacts, and anal intercourse, we recommend frequent examinations for those whose life-styles include these characteristics. (*Am J Public Health* 1981; 71:1004-1011.)

Before Goodman¹ described an outbreak of infectious syphilis among homosexual men in New York City, American physicians were either unaware of the venereal disease problem in this population or too reluctant to talk about it.² Since 1944, homosexual men have increasingly become acknowledged as a high-risk group, and efforts have been made to meet their special needs.³

Most studies of homosexual men to date have focused on syphilis and gonorrhea among public and gay clinic patients. We studied eight sexually transmitted diseases in 4,212 homosexual men who responded to a self-administered questionnaire in order to: 1) compare the distribution of self-reported sexually transmitted diseases with clinically reported distributions; 2) assess relative risk indicators for syphilis, gonorrhea, and other sexually transmitted diseases; and 3) evaluate reactions to medical care.

Address reprint requests to Centers for Disease Control, Attn: William W. Darrow, PhD, Center for Prevention Services, Technical Information Services, Atlanta, GA 30333. The co-authors' affiliations are: D. Barrett, Indiana University, Bloomington; K. Jay, Pace University, NYC; and A. Young, Orange, MA. A condensed version of this report was presented at the 107th Annual Meeting of the American Public Health Association, New York City, November 1979, and submitted for publication on August 20, 1980. A revised and expanded version was resubmitted to the *Journal* on February 6, 1981, and accepted for publication March 20, 1981.

Editor's Note: See also related editorial p 989 this issue.

Materials and Methods

Data collection instruments, survey procedures, and one-way frequency distributions have been published in *The Gay Report*.⁴ Here we only briefly describe the questionnaire, sample of respondents, variables selected, and statistical procedures used in our analyses.

The Questionnaire

The 16-page questionnaire developed for gay men was divided into two parts. Part I included 623 short-answer and single-response multiple-choice questions that covered 19 general topics (e.g., specific sexual acts, relationships, and venereal disease). Part II offered respondents an opportunity to write essays on four general topics (sexual experiences, interpersonal relationships, self-image, and social ostracism). Some of the quantitative data from Part I were presented in *The Gay Report* to provide the reader with a sense of the varieties of experiences and feelings reported by respondents, and to show that the people who participated in the survey were generally representative of the overall adult populations of the United States and Canada (in terms of age, place of residence, and religious background). However, by and large, the responses to Part II constituted the basis for *The Gay Report*.

Survey Respondents

Most of the 50,000 questionnaires that were printed in English for gay men were distributed through the 1,800

organizations listed by the National Gay Task Force. In addition, *Blueboy* (a national magazine sent to about 225,000 subscribers) published an abridged version of the questionnaire and invited its readers to respond. All who received questionnaires were told that the study was primarily to be regarded as a project in self-awareness; they were requested to complete the questionnaire and return it through the mail without any personal identifiers.

Questionnaires were returned from every state in the nation, the District of Columbia, Puerto Rico, the Virgin Islands, eight provinces of Canada, and several European, Asian, and African countries (see Appendix). Of the 4,329 questionnaires received, 4,212 (97.3 per cent) were regarded as suitable for coding. However, the number of respondents available for analysis for each question was usually less than 4,212 for two reasons: 1) over half of the questionnaires received (2,462) were the abridged version clipped out of *Blueboy*, and 2) respondents did not answer every question that was asked.

Variables

Of the 623 questions included on Part I of the questionnaire, we chose 168 for the statistical analyses that follow.

Major dependent variables were formed on the basis of responses to questions regarding the frequency of venereal infections ("How often have you had the following venereal diseases or sex-related maladies?"). Intervening variables included the frequency of checkups for venereal infections ("How often do you go for VD checkups?"), place of checkups ("Where do you go for VD checkups?"), and reactions to medical care ("In general, how do you feel about the way you are treated when you have VD checkups?"). All other variables included in our analyses were regarded as independent variables (e.g., place of residence, mode of entry into sample, age) or "controls" (e.g., whether the respondent lived in the United States or elsewhere, returned the complete or abridged questionnaire, was under 30 years of age or older).

Excluded from analysis were those questions that focused on feelings (e.g., "Whether or not you engage in any of the following, indicate how you feel about the idea of each of them"), or on behaviors thought to be unrelated to venereal infections (e.g., masturbation).

Statistical Procedures

Responses were coded, key-punched, and entered onto magnetic tape for computer-assisted analyses; they were then analyzed through the use of the Statistical Package for the Social Sciences (SPSS).⁵

To reduce the number of variables available to those significantly ($p < .05$) and most highly correlated with our dependent variables of interest, we used factor, stepwise discriminant, stepwise linear regression, and bivariate correlation analyses. After the 20 or so variables that seemed most important were identified, we continued our multivariate analyses by closely examining selected cross-tabulations and all statistics associated with each table.

Correlation and factor analyses revealed that many self-reported behaviors were highly correlated with one another, so we combined some of these to create indices of more general behavioral patterns. For example, men who frequently had sex in gay baths also tended to have sex in gay bars, public parks and bushes, public restrooms, and peep shows or pornographic movie houses, so we added the answers to these five original questions together and considered our new variable to be an index of furtive sexual activities. Similarly, we created additional indices to measure specific sexual practices, sexual activities associated with homosexual prostitution, and anonymous sociosexual encounters.*

Results

Pediculosis was the most common sexually transmitted disease reported by respondents (66.8 per cent of 4,179 respondents said they had been infested with lice or crabs at least once in their lifetime); herpes was least common (9.4 per cent of 4,160). Self-reports for the first seven diseases shown in Table 1 were highly correlated ($\rho = .750$) with the seven diseases diagnosed among homosexual men in a special study of six sexually transmitted disease clinics conducted in 1976.⁶ Hepatitis was not diagnosed in the 1976 study, but, based on estimates from a five-city clinic serologic survey,⁷ was probably underreported by our respondents.

*Further specifics available on request to authors.

TABLE 1—Self-Reported Venereal Infections: Answers to "How often have you had the following venereal diseases (VD) or sex-related maladies?"

Frequencies of Venereal Diseases	Pediculosis (N = 4179) %	Gonorrhea (N = 4187) %	Nonspecific Urethritis (N = 4158) %	Venereal Warts (N = 4161) %	Scabies (N = 4161) %	Herpes (N = 4160) %	Syphilis (N = 4175) %	Hepatitis (N = 4168) %
Never	31.9	60.0	72.7	79.6	80.7	87.1	85.2	87.7
Once	19.4	15.7	13.2	14.0	12.3	5.3	10.2	9.7
Twice	15.3	8.0	5.4	2.4	3.0	1.3	2.2	—
Three times	11.2	6.2	2.4	0.8	0.9	0.5	0.6	—
More than three times	20.9	8.5	3.1	0.9	0.8	2.3	0.5	—
Not sure	1.4	1.6	3.2	2.3	2.4	3.4	1.3	2.6

In the serologic survey, 21 per cent of clinic patients said they had been infected with hepatitis, but 61 per cent had serologic evidence of infections; only 17 per cent of respondents from four of those five cities in our survey said they had been infected with hepatitis.

Significant correlations were found among the eight sexually transmitted diseases; patients who reported previous infections with one disease tended to report previous infections with each of the others. Of the 160 independent and intervening variables examined, number of different lifetime sexual partners was most highly correlated with syphilis ($r = .249$), gonorrhea ($r = .402$), and hepatitis ($r = .272$).

Risk Indicators for Syphilis

Respondents ranged in age from 16 to 78 years ($\bar{X} = 33.0$, $SD = 10.2$) and had engaged in homosexual activities from less than one to 71 years ($\bar{X} = 13.1$, $SD = 11.3$). As age increased, the proportion who reported having had syphilis increased ($r = .119$, $p < .001$), but self-reports of syphilitic infections seemed to be even more closely tied to number of different lifetime sexual partners ($r = .249$), frequency of checkups ($r = .233$), and years as a practicing homosexual ($r = .202$). Specific sexual activities were also significantly associated with syphilis ($p < .001$): men who frequently engaged in furtive sexual activities ($r = .173$), particularly those who visited gay baths ($r = .183$), and men who frequently paid for sex with money ($r = .136$) had the most cases, as did men who most often engaged in anal intercourse ($r = .113$), and anilingus ($r = .123$). Size of city was significantly correlated ($p < .001$) with syphilis ($r = .105$), but not residency in the United States or elsewhere, completion of the entire or abridged (*Blueboy*) questionnaire, and many of the sociodemographic variables (e.g., education and religion).

The average number of different lifetime sexual partners had to be estimated ($Md = 49.5$) because some respondents reported "over 1,000" and a few simply provided a range (e.g., 400 to 500). The 272 men who said they had had "over 1,000" different sexual partners in their lifetimes accounted for at least 124 different infections with syphilis; in contrast, the 330 men with fewer than seven different partners accounted for only 17 different infections with syphilis. As shown in Figure 1, the relationship between number of different lifetime sexual partners and infections with syphilis held up for men under 30 years of age as well as those who were older, but was clearly stronger for older ($r = .256$) than younger ($r = .077$) men.

Age at first homosexual experience ranged from 3 years to 54 years ($\bar{X} = 16.2$, $SD = 6.8$); this variable was closely linked to place of residence and infections with syphilis. Of the 146 men who had had their first homosexual experience within the past four years and lived outside medium-sized cities or major metropolitan areas, none reported previous infections with syphilis, but 11 out of 156 men (7.1 per cent) who had had their first homosexual experience within the past four years and lived in medium-sized cities or major metropolitan areas reported syphilitic infections. Men with four or more years of homosexual experience reported

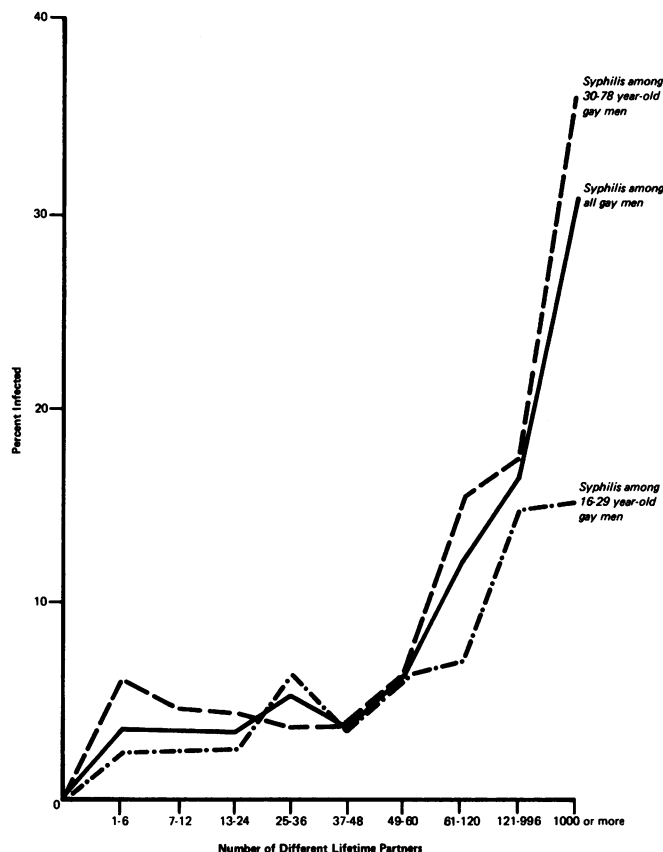


FIGURE 1—Number of Different Lifetime Sexual Partners and the Proportion of Homosexual Men Infected with Syphilis by Age Groups

previous infections of syphilis ranging from 11.0 per cent for those residing in small cities to 21.4 per cent for those living in major metropolitan areas.

Risk Indicators for Gonorrhea

In addition to number of different lifetime sexual partners, gonorrhea was highly correlated with frequency of checkups ($r = .335$), frequent visits to the gay baths ($r = .280$), and receiving money for sexual favors ($r = .153$). As was the case with syphilis, gonorrhea was closely associated with age ($r = .126$), years as a practicing homosexual ($r = .227$), and specific sexual activities ($r = .251$), especially anal intercourse ($r = .134$) and anilingus ($r = .166$). Gonorrhea was more prevalent than syphilis among residents of all places, but particularly major metropolitan areas (Figure 2); 11 of the 13 respondents who lived in major metropolitan areas and had all of their sexual exposures with other men in Turkish baths reported one or more previous infections with gonorrhea.

Risk Indicators for Hepatitis and the Other STDs

The other six sexually transmitted or sex-related maladies studied were also best predicted by number of different lifetime sexual partners (Figure 3), but furtive sexual activities ($r = .147$), especially frequent exposures in the baths ($r = .133$) and frequent contacts with male prostitutes ($r = .128$), were significant correlates of hepatitis.

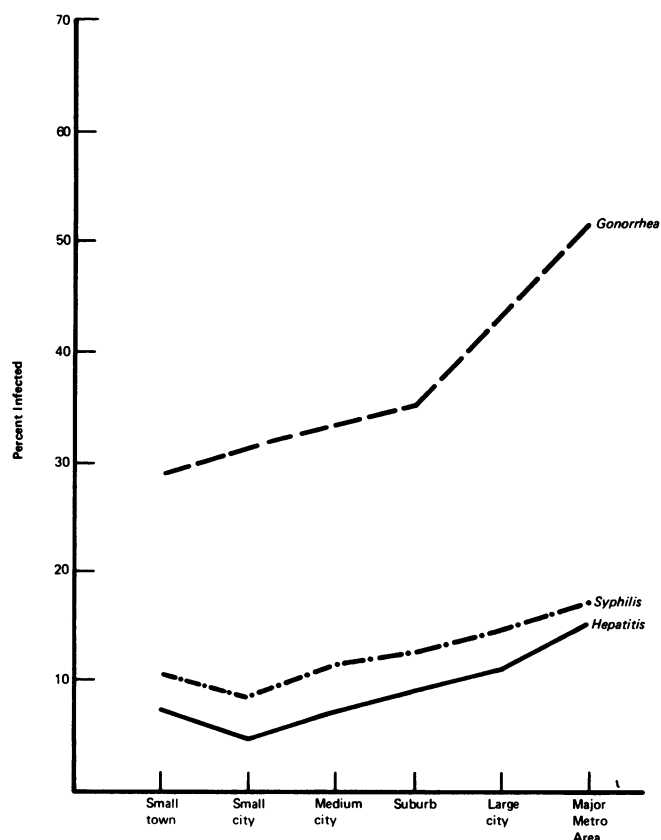


FIGURE 2—Size of Place of Residence and the Proportion of Homosexual Men Infected with Gonorrhea, Syphilis, and Hepatitis

As the frequency of sexual activities in gay baths, parks and bushes, public restrooms, bars, and peep shows or pornographic movie houses decreased (from “always” to “never”), so did self-reports of hepatitis (Table 2). This relationship was significant ($p < .001$) for younger ($r = .156$) as well as older (over 30 years of age) men ($r = .214$), for men with fewer than 100 partners ($r = .086$) as well as those with more ($r = .166$), and for men living in smaller places ($r = .228$) as well as in large cities and major metropolitan areas ($r = .247$). However, the correlation coefficient for hepatitis and furtive sexual activities was significant ($p < .001$) only for men who had been engaging in homosexual activities for more than three years ($r = .249$); it was not statistically significant ($p = .190$) for men who had been engaging in homosexual activities for less than three years ($r = .050$).

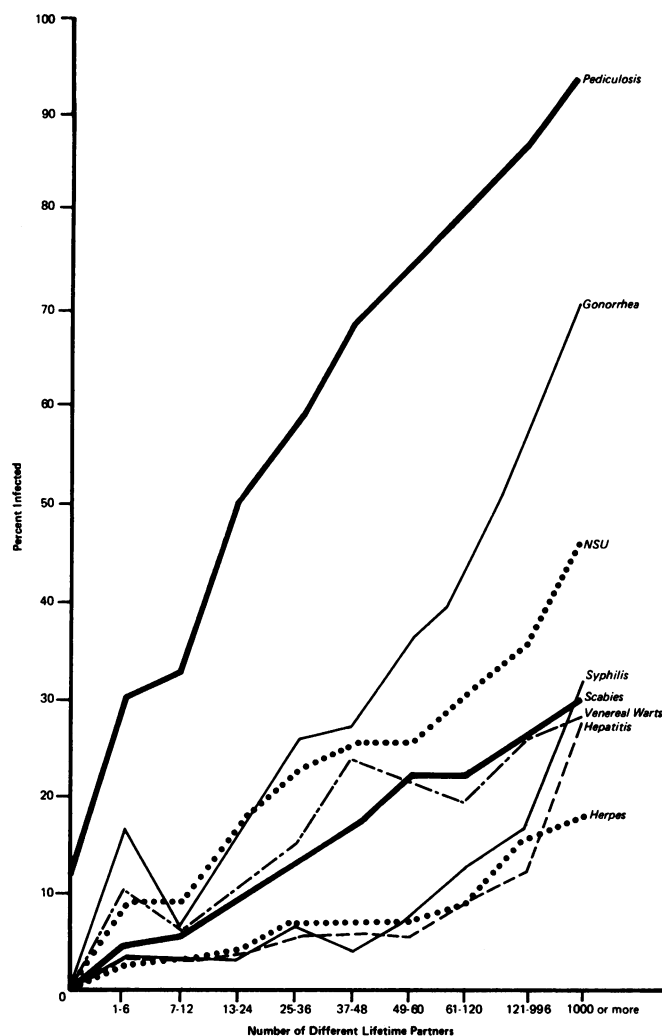


FIGURE 3—Number of Different Lifetime Sexual Partners and Proportion of Homosexual Men Infected with Sexually Transmitted Diseases

Medical Care

Frequency of checkups was considered to be a risk indicator for reporting a history of venereal infection, but it was also considered to be very important in terms of detecting these diseases before they could be transmitted to others. Fourteen per cent of respondents said they received VD checkups once every three months and 21.9 per cent reported having checkups once every six months, but 21.7

TABLE 2—Hepatitis History and Furtive Sexual Activities Reported by Gay Men: Index of Answers to “On the average, how often do you have sex in gay baths, bushes, public restrooms, bars, and peep shows (pornographic movie houses)?”

History of Hepatitis	Always (N = 65) %	Usually (N = 307) %	Often (N = 715) %	Sometimes (N = 751) %	Occasionally (N = 248) %	Rarely (N = 1050) %	Never (N = 906) %	Total (N = 4042) %
No	70.8	81.1	81.5	89.2	90.7	94.5	96.5	90.0
Yes	29.2	18.9	18.5	10.8	9.3	5.5	3.5	10.0

$$\chi^2 = 177.2 (6), p < .01; \gamma = 0.447$$

TABLE 3—Source of VD Checkups and Feelings about Care

Feelings about Medical Care	Health Care Provider				
	Gay Clinic (N = 376) %	Personal Physician (N = 1263) %	Other Doctor (N = 116) %	Public Clinic (N = 1013) %	Total (N = 2768) %
Very positive	58.0	54.0	37.1	34.2	46.6
Somewhat positive	21.3	14.9	18.1	26.6	20.2
Neutral	13.8	23.3	27.6	21.3	21.5
Somewhat negative	5.3	6.1	12.9	13.9	9.1
Very negative	1.6	1.7	4.3	4.0	2.7

$\chi^2 = 173.9$ (12), $p < .001$

per cent reported checkups less than once a year, and 22.7 per cent reported never having had a checkup. The more often respondents were examined for venereal infections, the more often they reported gonorrhea ($r = .335$), pediculosis ($r = .251$), nonspecific urethritis ($r = .240$), syphilis ($r = .233$), scabies ($r = .208$), venereal warts ($r = .208$), hepatitis ($r = .165$), and herpes ($r = .152$).

The number of different sexual partners in the past year best predicted frequencies of VD checkups ($r = .259$). The most common response for number of different lifetime sexual partners was "over 1,000"; the mode (359 respondents) for number of different sexual partners in the past year was "one" (Md = 9.6). As number of partners in the past year increased from "one" to "over 100" (270 respondents), the proportion of gay men examined for VD at least once a year increased from 31.5 per cent to 77.4 per cent, and the proportion examined for VD once every three months increased from 6.2 per cent to 30.8 per cent.

Most of those having had VD checkups obtained them from either their personal physicians (39.4 per cent) or public clinics (31.0 per cent). The 376 (11.7 per cent) who attended gay clinics had VD checkups more frequently than others (31.6 per cent were examined once every three months, in contrast to 18.8 per cent for public clinic patients) and seemed to be most satisfied with their medical care (Table 3). The relationship between frequency of checkups and satisfaction with care was statistically significant ($p < .001$) for those examined at gay clinics ($r = .267$), by their private physicians ($r = .289$), and at public clinics ($r = .202$) as well.

Although more respondents sought care from private physicians, those examined in gay and public clinics tended to be examined more frequently ($p < .001$) than those examined by their own doctors ($r = .189$). A stepwise linear regression model showed that respondents with higher incomes ($\beta = .215$), who also tended to be older ($\beta = .039$) and have longer, more established sexual relationships ($\beta = .099$), were most likely to be examined by their personal physicians. Younger men ($r = .276$) who had just begun their homosexual activities ($r = .262$), had not established relationships with one male partner ($r = .230$), and had lower incomes ($r = .303$) tended to visit public clinics, and these clients of public clinics tended to be examined for venereal infections more frequently in spite of their more negative feelings about the way they were treated.

Places of residence and interest in keeping one's homosexuality a secret from neighbors were significantly related to frequencies of checkups, sources of health care, and reactions to medical care ($p < .05$), but these two variables entered stepwise regression equations after such variables as "income," "years as a practicing homosexual," and "number of different sexual partners in the past year." Men who lived in major metropolitan areas (especially, the District of Columbia, Los Angeles, and New Orleans) and small towns or small cities were more likely to visit private physicians than public clinics ($p < .001$); men who lived in major metropolitan areas (especially, Seattle, San Francisco, and Houston) were examined most often ($r = .197$), and residents of major metropolitan areas (especially, Minneapolis, New York, and New Orleans) were most satisfied with their care ($r = .140$). Those who wanted to keep their homosexuality a secret from neighbors tended to visit private physicians rather than public clinics ($r = .094$), tended to be examined less frequently ($r = -.157$), and tended to feel less positive about their care ($r = -.057$).

Discussion

All study samples of gay men are seriously flawed because no one knows the magnitude or basic characteristics of the homosexual population in the United States. Kinsey and his staff⁸ set out to interview 100,000 volunteers in 1938, offered a progress report on the sexual outlets of 5,300 White men in 1948, and were still 81,784 interviews short of their goal when data collection ceased in 1963. The homosexual sample of 2,066 men recently analyzed by Gebhard and Johnson⁹ is a curious mixture of men with 50 or more homosexual exposures or 20 or more different same gender partners gathered from three independent samples: the basic sample of 5,637 men recruited by Kinsey, *et al.*, (407 gay); a sample of 3,244 male prisoners (1,025 gay); and a special sample of 634 homosexuals "known for their deviant sexual bias."

One recent report from the Institute for Sex Research on societal responses to homosexual men was based on self-administered questionnaires sent to members of Mattachine Societies in New York and San Francisco and the Society for Individual Rights in San Francisco.¹⁰ Another report on clusters of homosexual life-styles was based on interviews

conducted with men recruited in the San Francisco Bay area.¹¹ The sample of 4,212 gay men we studied should not be considered as representative of all homosexual men in the United States; generalization to this population should not be made. However, our sample supersedes the sample created by Gebhard and Johnson⁹ as the largest and most diverse available, and offers a basis for comparison with other populations.

Unfortunately, comparisons are very difficult to make because different research investigators have been interested in different research problems at different times; consequently, homosexuals have been defined differently, major variables have been defined differently, and major variables have been measured differently.

In most studies of gay men, the theoretical concept of homosexuality is unclear, and its operational definition is imprecise. Kinsey, *et al*, considered exhibitionism, mutual manipulation of the genitalia, and other forms of preadolescent sex play to be homosexual when carried out in the presence of others of the same gender. Gebhard and Johnson focused on that subsegment of the homosexual population who reported 50 or more homosexual exposures or 20 or more homosexual partners. Weinberg and Williams tell us homosexuality refers to many different things besides sexual outlets chosen; they argue that the concept should apply to a status or roles, but it should not reflect a condition. In our study, anyone who completed a questionnaire and sent it to us was considered to be a homosexual. However, 99.9 per cent of these respondents reported having had sexual exposures with other men.

Of the four other major studies mentioned to this point, only the one that examined the problems of homosexual men (and their resolution)¹⁰ ignored the problem of venereal infections. In the original series of 521 items developed by Kinsey, four questions regarding venereal infections were asked: 1) How old were you when you first learned about venereal disease?; 2) What was the source of that knowledge?; 3) Has fear of venereal disease affected your decision to have premarital coitus?; 4) How many times have you had a venereal disease? Kinsey, *et al*, showed that men with lower levels of educational achievement had more fear of VD, but they never reported on VD knowledge and prevalence. Gebhard and Johnson showed that the 4,673 or so White college men they analyzed tended to learn about venereal disease at the age of 14 years (Md = 13.7); the primary source of information was a same sex peer (44.3 per cent); fear of venereal disease had no (58.5 per cent) or little influence (16.6 per cent) on their premarital behavior; and 0.3 per cent had syphilis, 3.6 per cent had gonorrhea, and 0.2 per cent had both diseases. In contrast, the 631 non-college White men showed 1.4 per cent infected with syphilis, 11.1 per cent with gonorrhea, 0.6 per cent with both diseases, and the 176 college Black men showed 1.1 per cent infected with syphilis, 27.3 per cent with gonorrhea, and 1.7 per cent with both. However, Gebhard and Johnson failed to publish similar results for their homosexual sample.

Bell and Weinberg added the observation that about two-thirds of their Bay-Area homosexual men had at some time contracted venereal disease, but did not cross-tabulate

their reports of venereal disease with any of their other 527 questions or with their five clusters of homosexual men. Of the 4,212 men we studied, 2,789 said they had had at least 6,982 cases of pediculosis; 1,609 said they had had at least 3,529 cases of gonorrhea; 1,000 said they had had at least 1,807 cases of nonspecific urethritis; 752 said they had had at least 1,030 cases of venereal warts; 705 said they had had at least 1,001 cases of scabies; 563 said they had had at least 767 cases of syphilis; 403 said they had been infected with hepatitis; and 392 said they had been infected with genital herpes. Of the 4,080 who answered questions about venereal infections with certainty, 3.7 per cent said they had been infected with syphilis, 29.0 per cent said they had been infected with gonorrhea, and 9.7 per cent said they had been infected with both diseases.

Although no other survey has been able to show so clearly the serious problem of sexually transmitted diseases among gay men, retrospective studies of clinic populations have been suggestive. In the United Kingdom, homosexual men examined in 178 public clinics¹² and at the Newcastle,¹³ Charing Cross,¹⁴ and St. Bartholomew¹⁵ hospitals seemed to suffer from syphilis, gonorrhea, and nonspecific venereal infections more frequently than heterosexual men, and the proportion of homosexual men suffering from these diseases appeared to be increasing. In the United States¹⁶ and Canada,¹⁷ reported cases of infectious syphilis among homosexual men appear to be increasing, and many cases of gonorrhea, hepatitis, and anal warts have been reported by gay clinics in Los Angeles,¹⁸ Chicago,¹⁹ and New York.²⁰ The only American study of sexually transmitted diseases in a private medical practice demonstrated high rates of rectal, pharyngeal, and urethral gonorrhea in 79 White, middle-class, homosexual men.²¹ Screening activities at a gay bar in Cincinnati,²² in gay bathhouses in Denver^{23,24} and Los Angeles,²⁵ in gay bathhouses and at a dance in Seattle,²⁶ and at bars, in a bathhouse, and at a Winter Carnival in Chicago²⁷ tend to support our survey results and published findings for various clinic and outreach populations: homosexual men have extremely high rates of syphilis, gonorrhea, and other sexually transmitted diseases.

Recent editorials²⁸⁻³⁰ and a review article³¹ have proposed that homosexual men have higher rates of sexually transmitted diseases than heterosexual men and women because gay men tend to have larger numbers of different sexual partners, more often engage in furtive sexual activities, and more frequently have unprotected anal intercourse. Our data tend to support and extend these hypotheses.

In their analysis of 946 nondelinquent White homosexual men (Md = 26.7 years old), Gebhard and Johnson⁹ found the median number of different lifetime sexual partners to be 20; 8.4 per cent reported having had over 500 different lifetime sexual partners. In their study of 575 nondelinquent White homosexual men (Md = 33 years old) interviewed in the San Francisco Bay area some 20 to 30 years later, Bell and Weinberg¹¹ found the average to be much higher; 43 per cent of their respondents said they had had at least 500 different lifetime sexual partners. In our study of 4,212 homosexual men (Md = 30.7 years old and 95.9 per cent White), we found the median to be 49.5 different lifetime

sexual partners (Md = 200.3 for 195 White men in San Francisco), that 12.5 per cent reported over 500 different partners (32.7 per cent in San Francisco) and that the number of different lifetime sexual partners was the very best predictor of previous infections with syphilis, gonorrhea, and other sex-related infections.

Of the nonclinical studies, Saghir and Robins³² clearly showed more sexual partners among homosexual than heterosexual men: 94 per cent of the 89 homosexual men (Md = 33 years old) and 21 per cent of the 35 heterosexual men (Md = 28 years old) interviewed said they had had 15 or more partners. In clinical studies conducted in Denver³³ and Columbus,³⁴ homosexual men reported more partners in the past month than heterosexual men, but these men were considerably younger than men surveyed outside of clinical settings (about 85 per cent of patients in Denver were under 30 years of age). Gay men who were tested in bathhouses in Chicago tended to be older than those tested in gay bars and at the clinic; they also tended to have more partners and more venereal infections.³⁵

We found number of different lifetime sexual partners to be highly correlated with age ($r = .253$), place of residence ($r = .166$), and a number of other variables, including furtive sexual activities ($r = .514$), sex in gay baths ($r = .392$), and receiving monetary payment for sexual services ($r = .292$), but stepwise regression and discriminant analyses suggested that these variables often contributed independently to the number of venereal infections reported. Thus, homosexual men with large numbers of different sexual partners tended to be older, tended to live in major metropolitan areas, and more frequently engaged in furtive sexual activities. However, even those who had relatively few partners, were younger, and lived outside of large cities and major metropolitan areas still had significantly higher rates of disease if they frequently engaged in furtive sexual activities (especially if they went to gay bathhouses often or were involved in homosexual prostitution).

Although specific sexual activities such as anal intercourse and anilingus did not appear to be as important as number of different lifetime sexual partners and furtive sexual activities, they were significantly related to venereal infections, and often remained so when the effects of number of different lifetime sexual partners and furtive sexual activities were statistically controlled. For example, among 972 homosexual men who had never visited the baths and reported fewer than 100 different partners, number of gonococcal infections was significantly ($p < .01$) related to the frequency of receptive anal intercourse ($r = .078$) and history of syphilis was significantly ($p < .05$) related to frequency of anilingus ($r = .064$). Therefore, men with large numbers of different sexual partners, men who frequently had sexual encounters in gay bathhouses, were involved in homosexual prostitution, or engaged frequently in other furtive sexual activities, and men who often engaged in anal intercourse and anilingus appeared to be at greatest risk of contracting venereal infections; they should be examined more frequently than men whose life-styles do not include these characteristics.

Less attention has been given to questions of medical

care than has been given to questions of prevalence and risk indicators among gay men, but a recent study of 602 respondents to a self-administered questionnaire published in *Gay Community News*³⁶ showed only 49 per cent had shared knowledge of their sexual orientation with their primary health providers; those who had shared this information were more satisfied with their medical care, and, if men, were more likely to have been checked for VD.

In our study, number of different lifetime sexual partners best predicted number of venereal infections, but number of different sexual partners in the past year best predicted frequencies of checkup. Frequency of checkups was significantly correlated with reactions to medical care: those who were examined most frequently felt most positive about their care. Reaction to medical care was associated with usual source of medical care: gay men seemed more satisfied with the services they received in gay clinics. Therefore, public health authorities should improve their medical services for gay patients, and, if the need can be demonstrated, they should encourage qualified members of the gay community to establish and maintain their own VD clinics.

Finally, our data suggest that many gay men suffer frequently from sexually transmitted diseases and a sizable minority of these are never checked for VD. Researchers are challenged with the task of bringing public health workers and gay citizens together for the purpose of developing and implementing better methods of venereal disease prevention, early case detection, and effective treatment. Fortunately, one such effort, the hepatitis B vaccine trial, has just been completed.³⁷

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APPENDIX

As shown below, respondents were slightly more likely to reside in the Northeast and West than the single male adult population of the United States enumerated in 1970.³⁸ Many of the men in the Northeast (45.4 per cent) lived in the state of New York, and most of the men in the West (66.9 per cent) lived in California. Of the 4,329 men who responded, 90.0 per cent (3,898) lived in the United States, Puerto Rico, or the Virgin Islands, 7.6 per cent (329) lived in Canada, 0.5 per cent lived elsewhere, and 1.9 per cent gave no information about their state or nation of residence.

TABLE A—Region of Residence in the United States of Single Male Adults and Gay Male Respondents

Region	Per Cent Single Men 14 years old and older (N = 20,426,937)	Per Cent Single Men 30-34 years old (N = 601,868)	Per Cent Gay Male Respondents (N = 3,887)
Northeast	24.9	28.7	32.5
North Central	27.3	24.8	22.0
South	30.0	27.7	20.9
West	17.8	18.8	24.6

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